

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

DERWENT-ACC-NO: 2002-525845

DERWENT-WEEK: 200256

COPYRIGHT 1999 DERWENT INFORMATION LTD

TITLE: Apparatus of transmitting reproduced sound of mp3
player
in radio

INVENTOR: KIM, Y I; LEE, K Y

PATENT-ASSIGNEE: HANNAM ELECTRONICS CO LTD [HANNN] ,
LEE K Y [LEEKI]

PRIORITY-DATA: 2000KR-0044029 (July 29, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE:	PAGES
MAIN-IPC			
KR 2002010350 A	February 4, 2002	N/A	001
G11B 033/12			

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NC
APPL-DATE		
KR2002010350A	N/A	2000KR-0044029
2000		July 29,

INT-CL (IPC): G11B033/12

ABSTRACTED-PUB-NO: KR2002010350A

BASIC-ABSTRACT:

NOVELTY - An apparatus of transmitting reproduced sound of an MP3 player is provided to radio-transmit an audio signal reproduced by an MP3 player to a car audio device to output sounds through a speaker.

DETAILED DESCRIPTION - An apparatus of transmitting reproduced sound of an MP3 player includes a frequency selector for selecting a frequency for transmitting an audio signal output from a portable MP3 player(100) to the tuner of a car audio device(300), an FM radio frequency converter(210) for FM-converting the audio signal and carrying the FM signal with a radio frequency, and an RF amplifier(212) for amplifying the FM radio frequency signal sent from the FM radio frequency converter. The apparatus further has a band pass filter(214) for extracting electric waves in a desired frequency band from the radio frequency signal output from the amplifier and transmitting the electric waves in radio through an antenna, and a frequency counter(213) for counting frequencies of the signal output from the FM radio frequency converter for a predetermined period of time. The apparatus also has a liquid crystal display driver(218) for generating liquid crystal display driving data in order to display the counted frequency as digital figures on a liquid crystal display(220), and a constant voltage unit for uniformly maintaining power provided by a car.

CHOSEN-DRAWING: Dwg.1/10

TITLE-TERMS: APPARATUS TRANSMIT REPRODUCE SOUND
PLAY RADIO

DERWENT-CLASS: T03

EPI-CODES: T03-L;

